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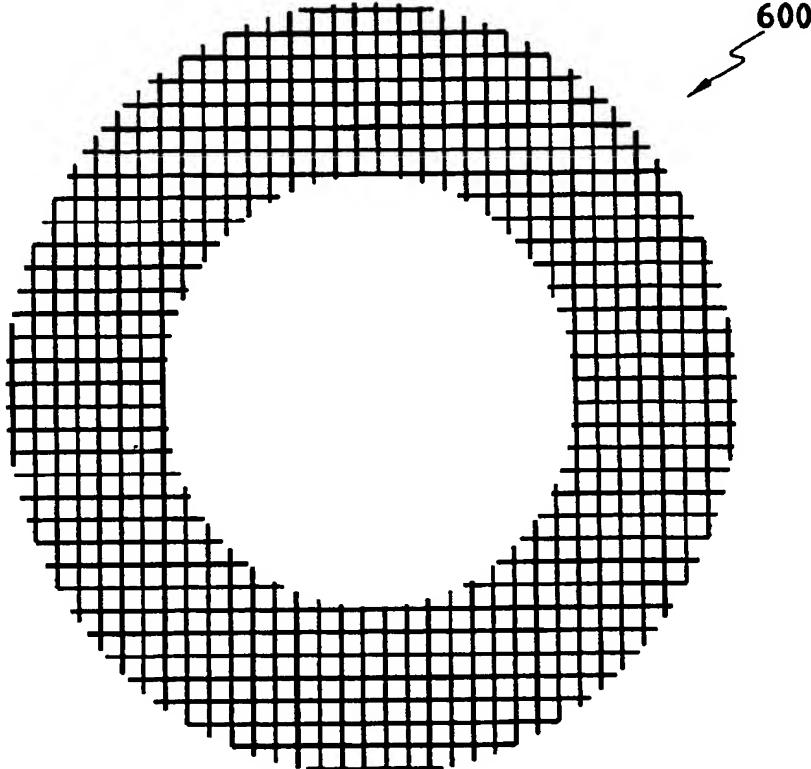
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(54) Title: ONE PIECE SHIM



(57) Abstract: A one-piece or  
otherwise unitary annular shim  
member made from a perforated  
metallic material is used to maintain  
a space between stacked annular  
preforms during a manufacturing  
process, such as densification. The  
metallic material used preferably can  
withstand at least the temperatures  
encountered during densification. The  
one-piece structure advantageously  
simplifies the arrangement of the  
preforms in a process chamber  
and causes less deformation in the  
preforms. In one example, the shim  
member is made from a metallic mesh  
and may utilize a crimped weave  
structure.



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7	F16D69/02	C04B35/83	C23C16/458	C23C16/44
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C04B C23C F23D F16D H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 419 949 A (PERCY HENRY HERRING; G N HADEN & SONS LTD) 19 November 1934 (1934-11-19) page 3, line 42 - page 4, line 12; figure 2 -----	1
A	EP 1 158 568 A (APPLIED MATERIALS INC) 28 November 2001 (2001-11-28) column 5, line 57- - column 6, line 1 -----	
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A	US 4 154 322 A (TERAI YOSHIYUKI ET AL) 15 May 1979 (1979-05-15) -----	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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